

Fig. 1



08

08

Fig. 2B

Fig. 2C

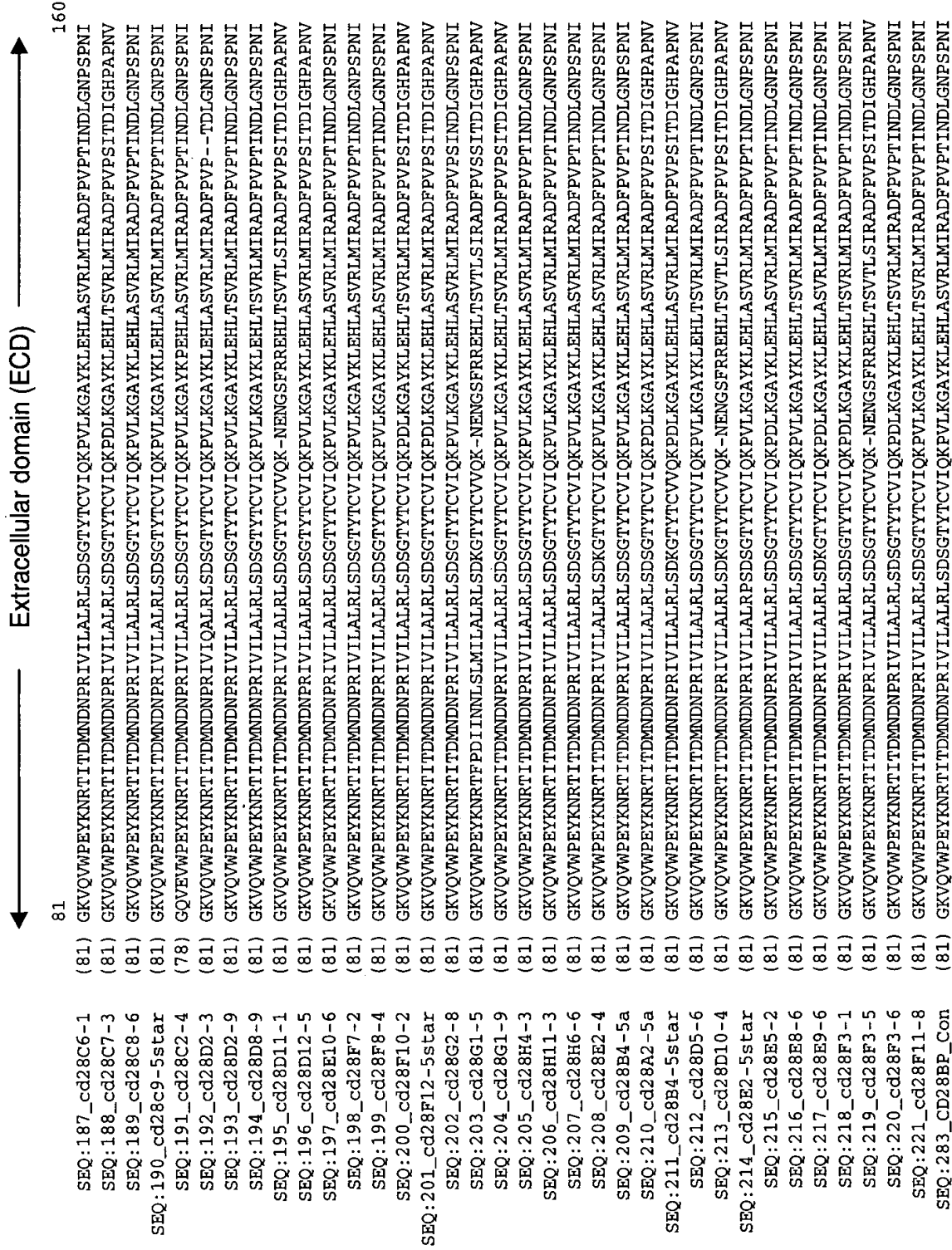


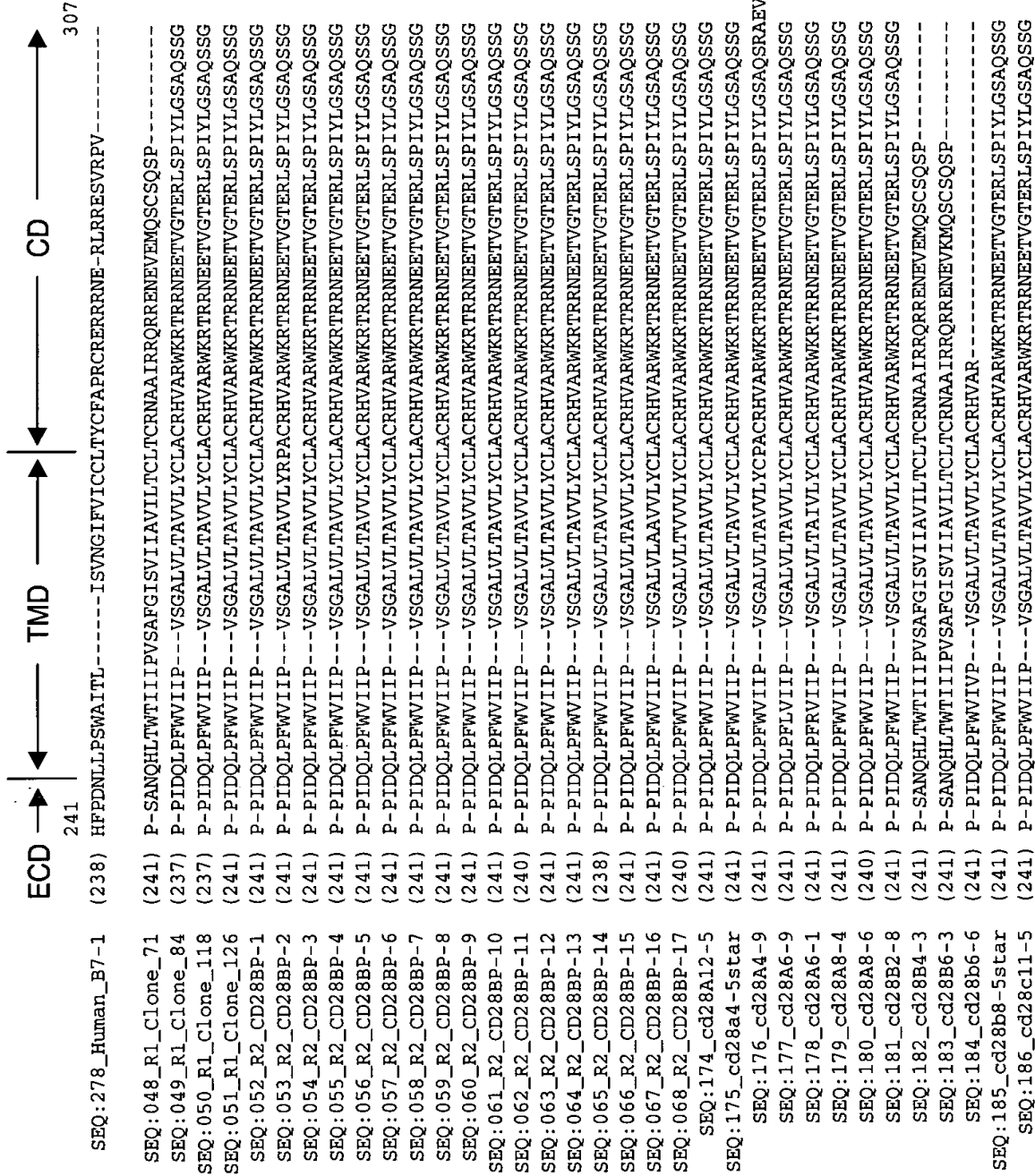
Fig. 2D

		Extracellular domain (ECD)	
161	161		240
SEQ: 278_Human_B7-1	(158)	RRIICSTSGGFPRLPHLSWLENGEELNATNTTTSQDPETELYAVSKLDFNMTTNNHSPMCLIKYGHRLVNTFNWNTTKQE	
SEQ: 048_R1_Clone_71	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPETKLYMISSELDNFNTNHSFLCLVKYGDLTVSQTFYWQESKPT	
SEQ: 049_R1_Clone_84	(157)	KRIRCSASGGFPRLPRLAWMEDGEELNAVNTTVDQDLDTLEYSVSSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 050_R1_Clone_118	(157)	KRIRCSASGGFPRLPRLAWMEDGEELNAVNTTVDQDLDTLEYSVSSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 051_R1_Clone_126	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 052_R2_CD28BP-1	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 053_R2_CD28BP-2	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPETKLYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 054_R2_CD28BP-3	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 055_R2_CD28BP-4	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 056_R2_CD28BP-5	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 057_R2_CD28BP-6	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 058_R2_CD28BP-7	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 059_R2_CD28BP-8	(161)	KRIRCSASGGFPRLPRLAWMEDGEELNAVNTTVDQDLDTLEYSVSSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 060_R2_CD28BP-9	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 061_R2_CD28BP-10	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 062_R2_CD28BP-11	(160)	KRIRCSASGGFPRLPRLAWMEDGEELNAVNTTVDQDLDTLEYSVSSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 063_R2_CD28BP-12	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 064_R2_CD28BP-13	(161)	RRLICSTSGGFPRLPRLAWMEDGEELNAVNTTVDQDLDTLEYSVSSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 065_R2_CD28BP-14	(158)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
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SEQ: 174_cd28A12-5	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 175_cd28a4-5star	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPETKLYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
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SEQ: 181_cd28B2-8	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
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SEQ: 185_cd28b8-5star	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	
SEQ: 186_cd28c11-5	(161)	RRLICSTSGGFPRLPHLYWLENGEELNATNTTTSQDPGTLEYMISSELDNFVNTNNHSIVCLIKYGELSVSQIFPWSKPKQE	

Fig. 2E

1780

1780



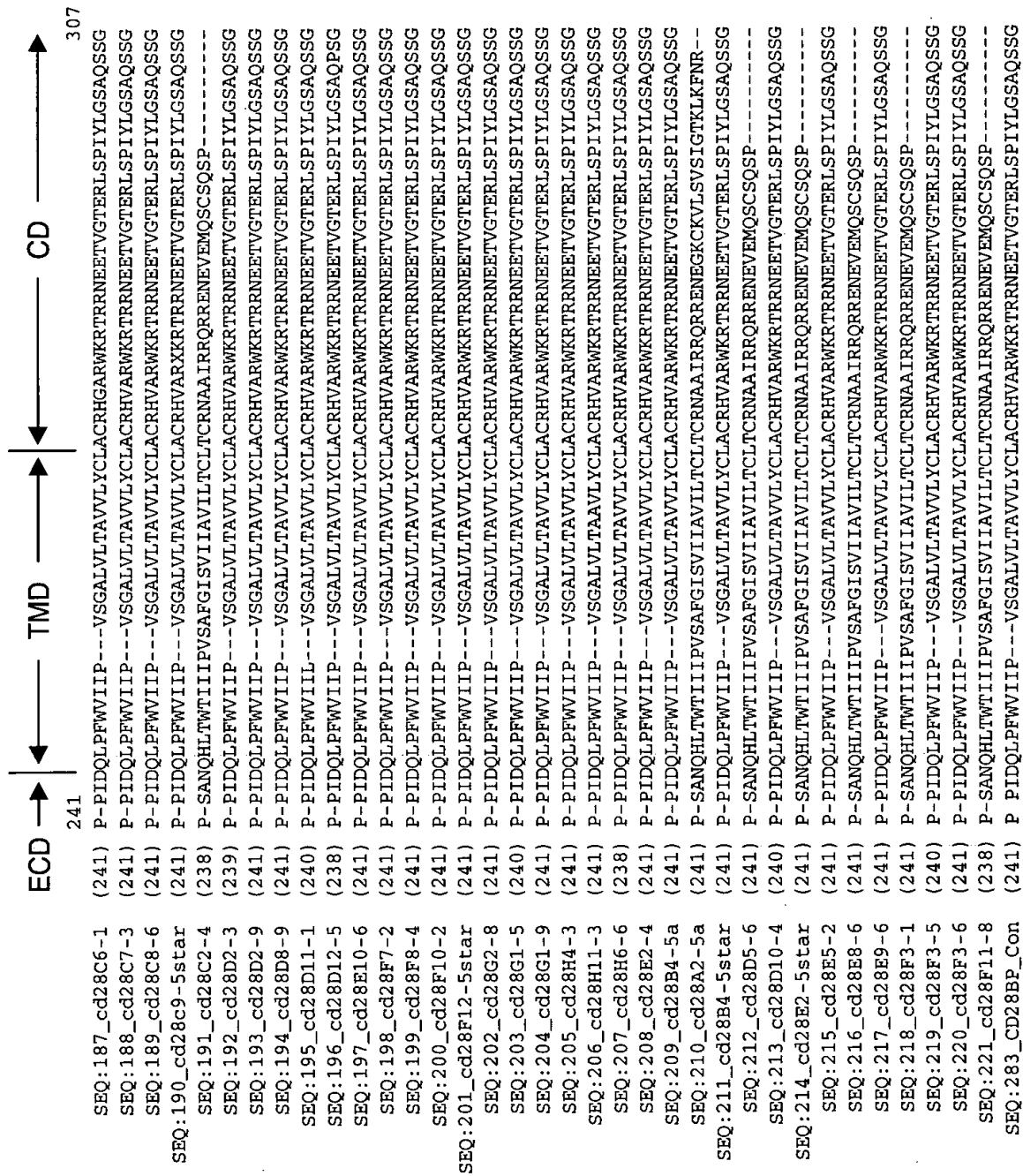


Fig. 2H

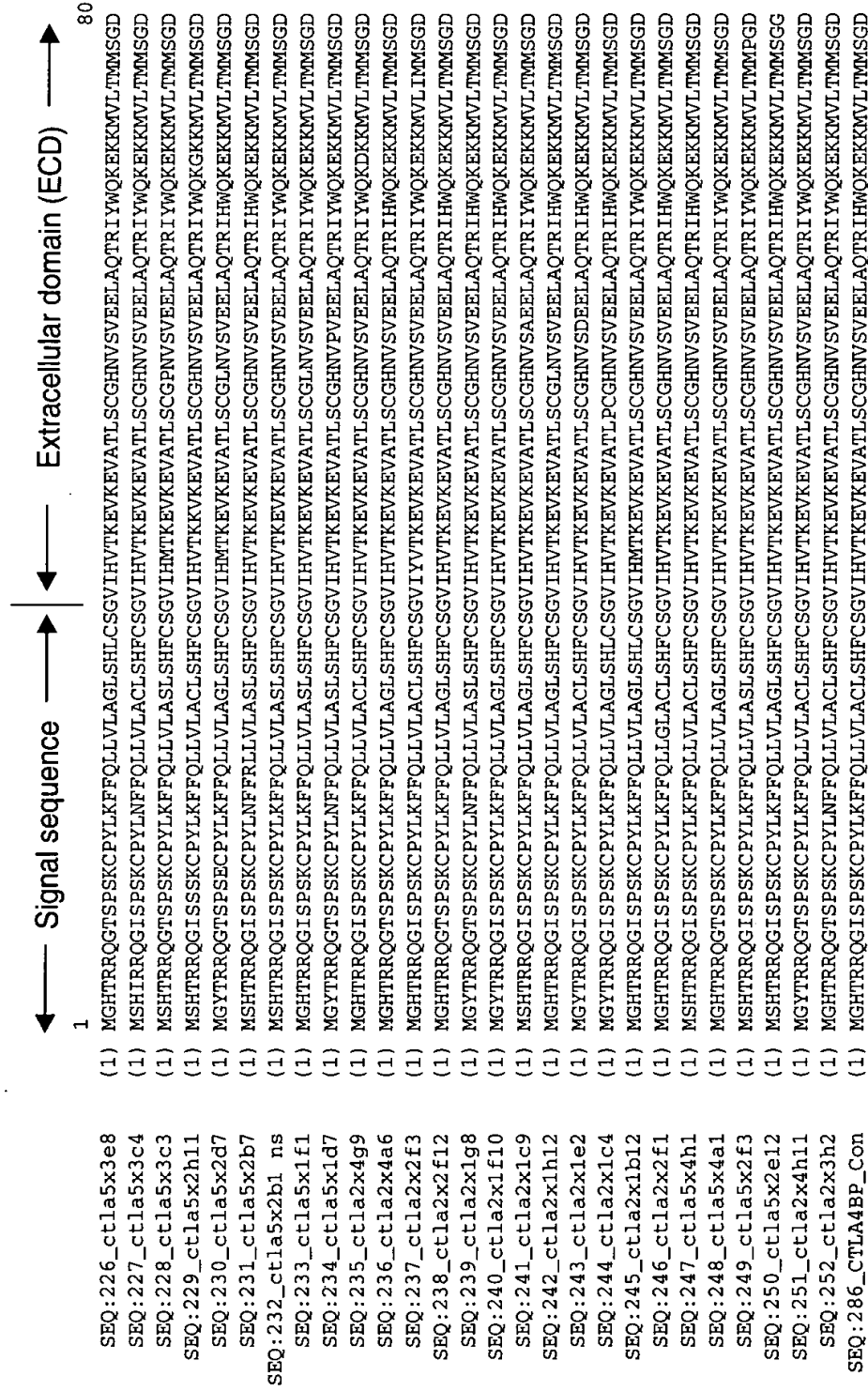


Fig. 3B

19555324 120301

44-38861-10

Fig. 3C

	Extracellular domain (ECD)	160
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SEQ: 227_ctla5x3c4	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 228_ctla5x3c3	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 229_ctla5x2h11	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 230_ctla5x2d7	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 231_ctla5x2b7	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 232_ctla5x2b1 ns	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 233_ctla5x1f1	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 234_ctla5x1d7	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 235_ctla2x4g9	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 236_ctla2x4a6	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 237_ctla2x2f3	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 238_ctla2x2f12	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 239_ctla2x1g8	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
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SEQ: 242_ctla2x1h12	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 243_ctla2x1e2	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
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SEQ: 246_ctla2x2f1	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 247_ctla5x4h1	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
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SEQ: 252_ctla2x3h2	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 253_ctla2x3h1	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	
SEQ: 254_BBP_Con	(81) MNIWPEYKKNRTIFDI TNNLSIVILALRPSDEGTGTCVWLEKDAFKREHLAEVTL SVKADFPTPSISDFEIPPSNIRRI	

Fig. 3D

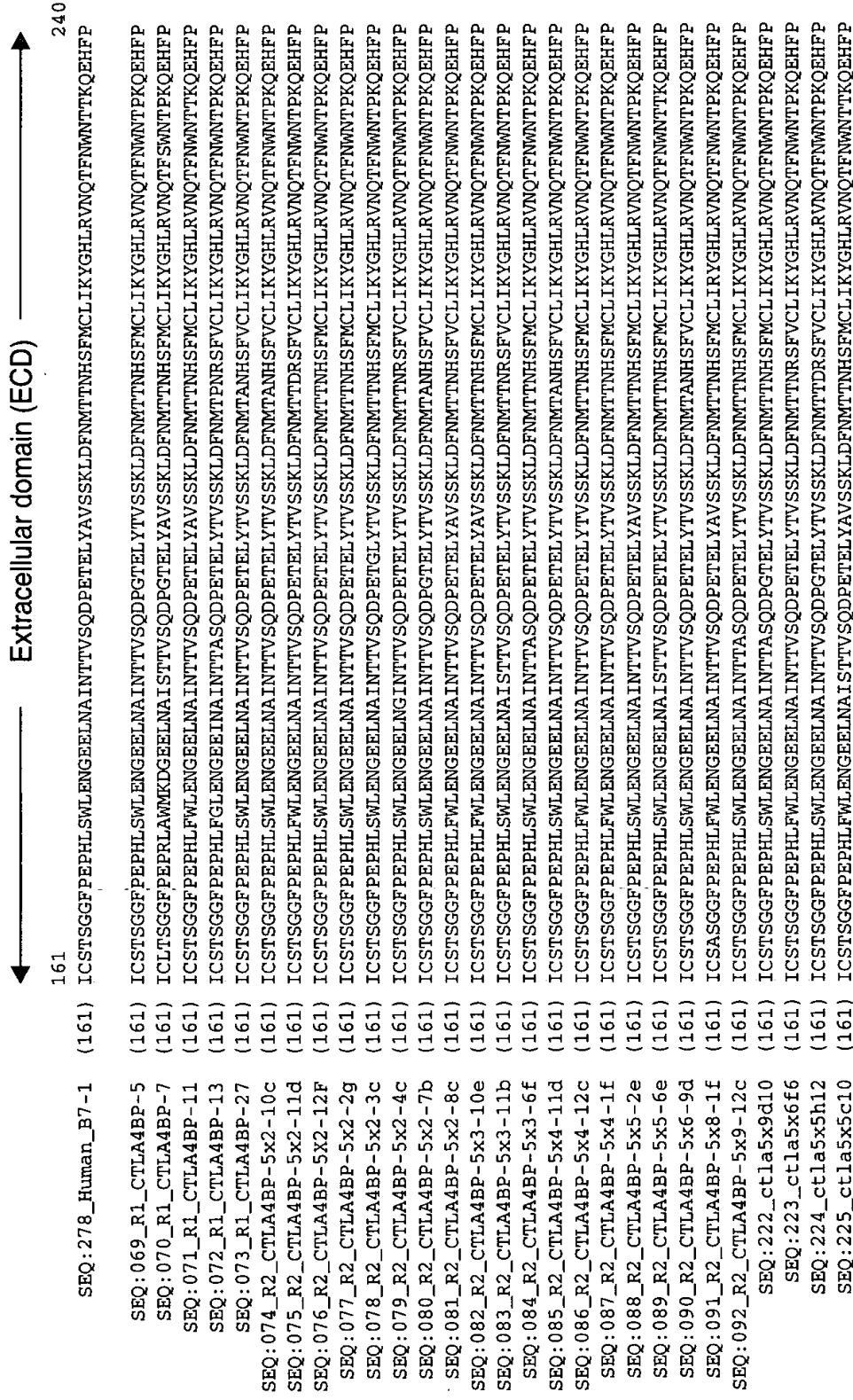


Fig. 3E

Extracellular domain (ECD)

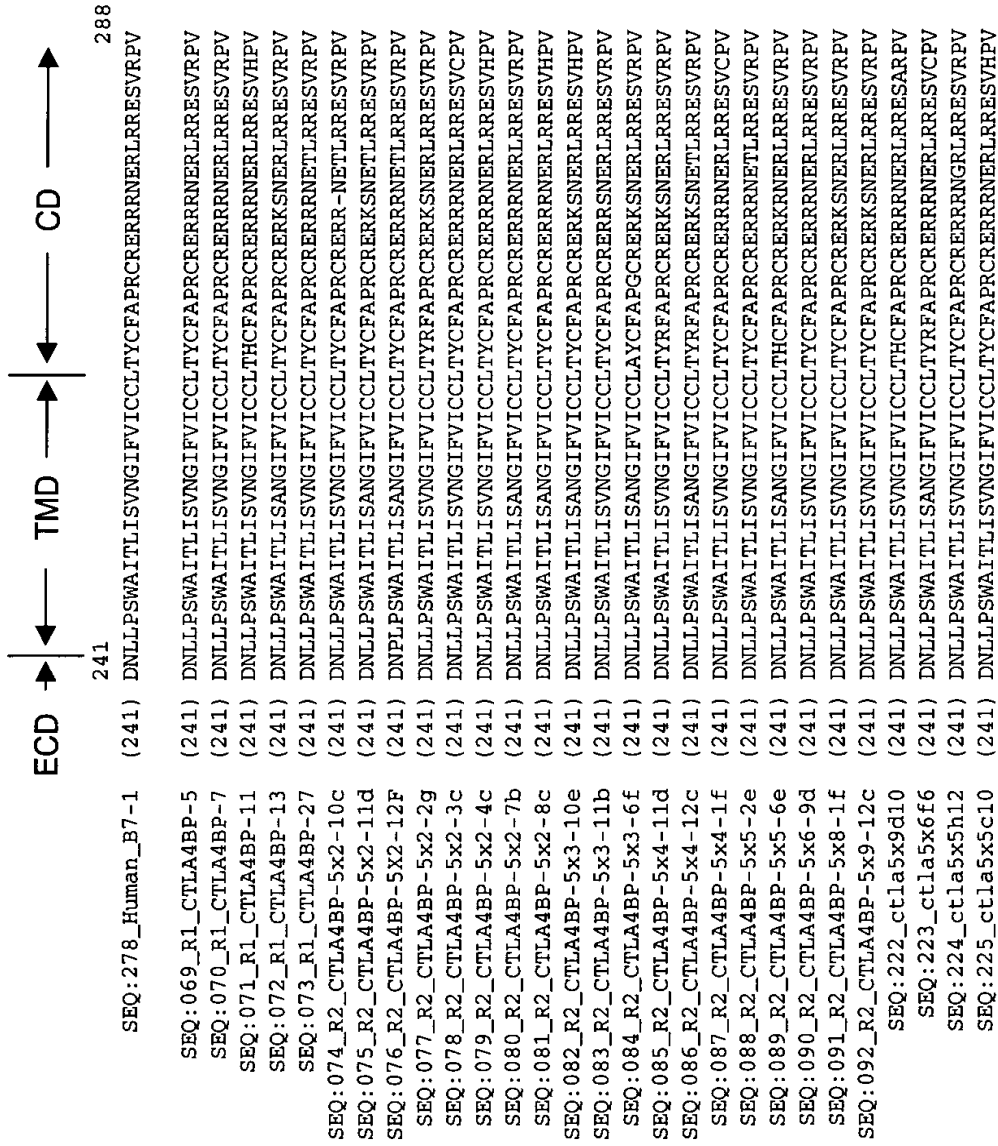


Fig. 3G

Fig. 3H

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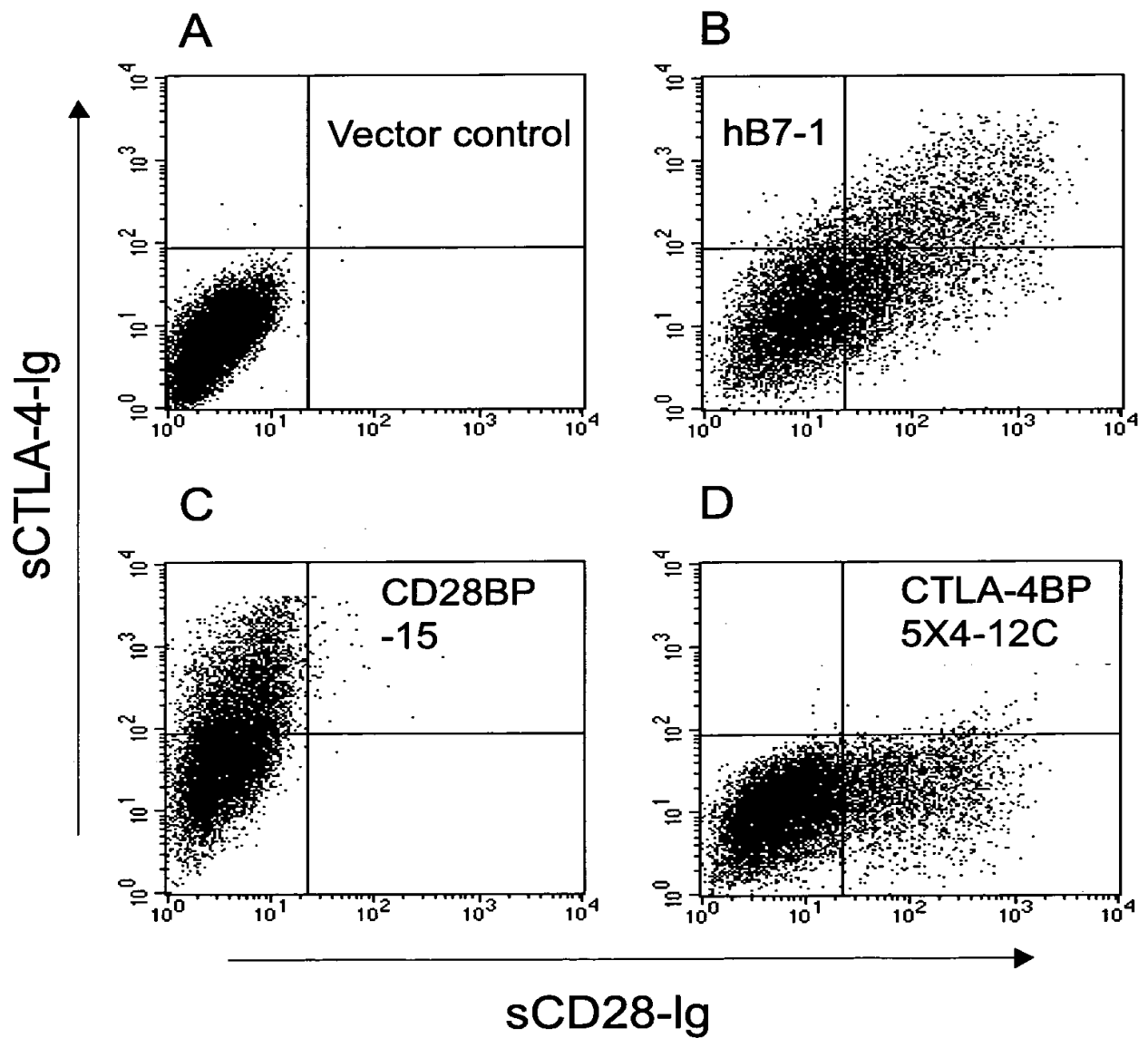
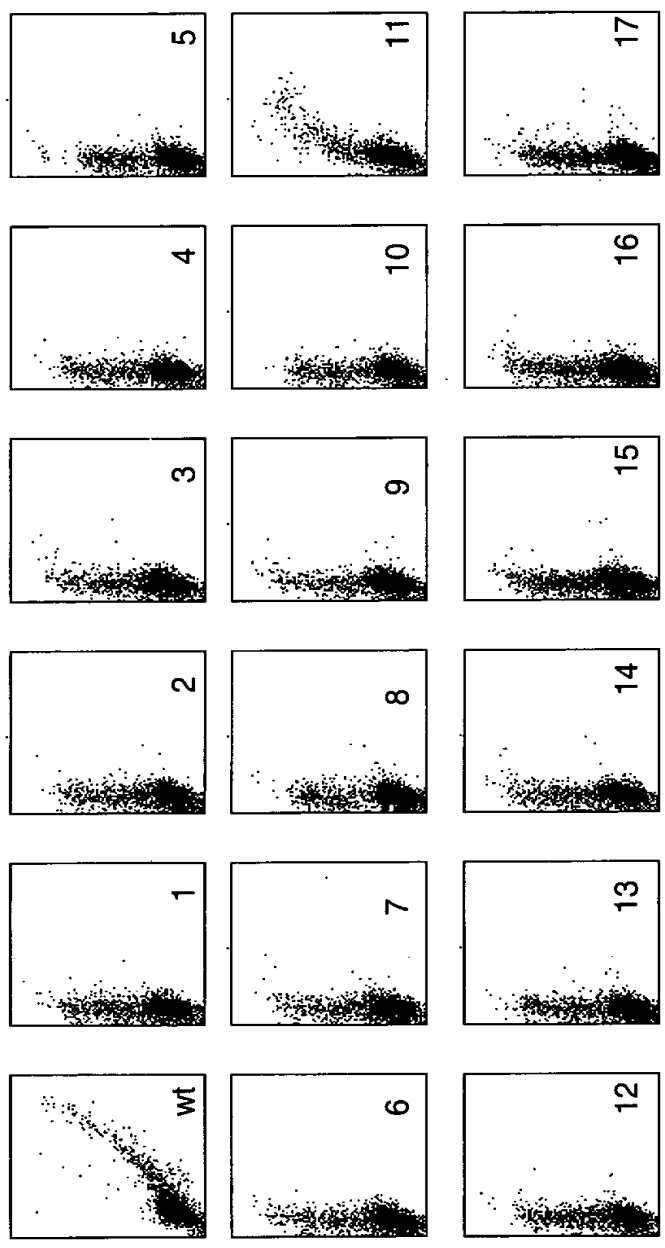


Fig. 4



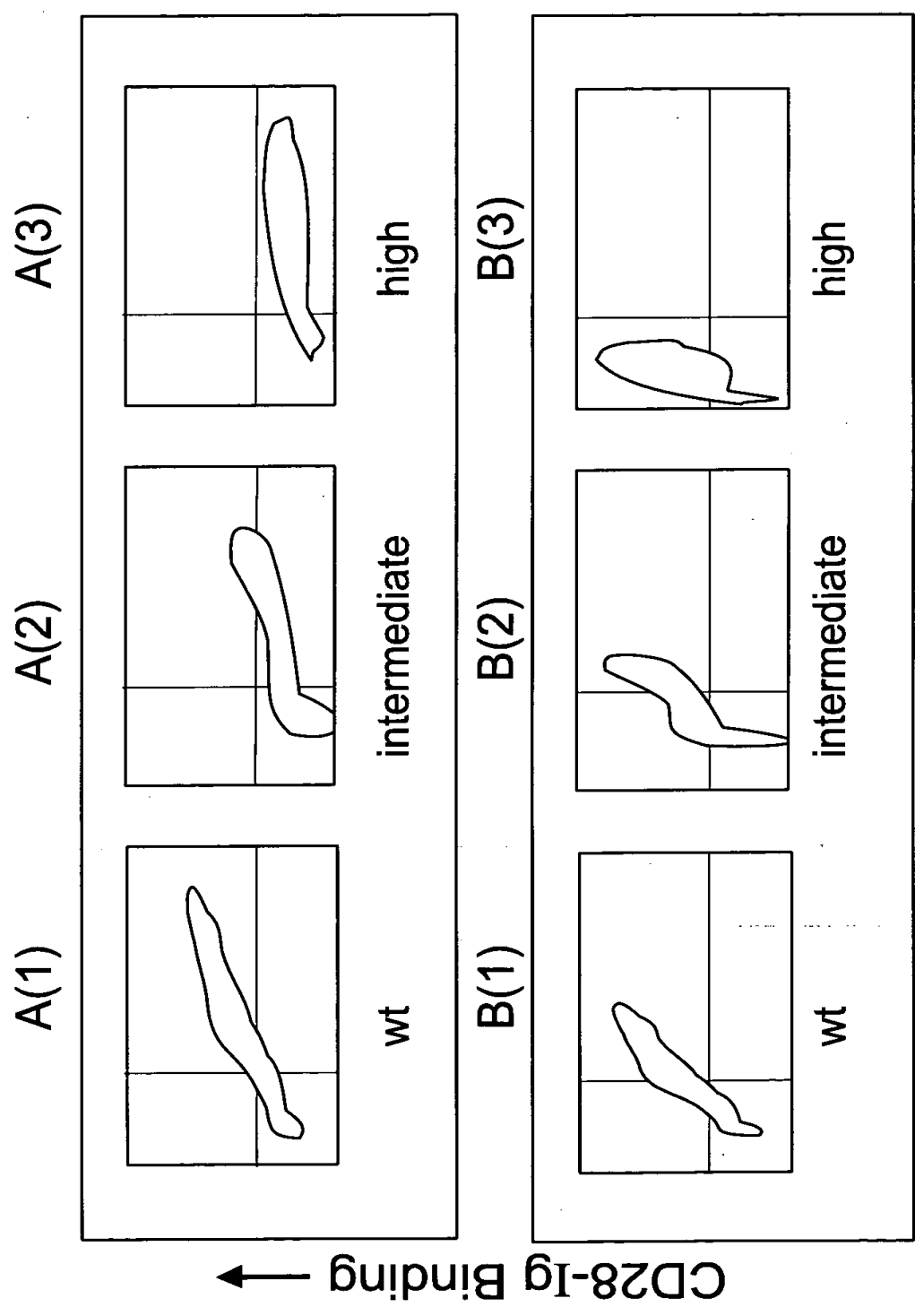
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CD28
Binding

CTLA4 Binding

Fig. 5



CTLA-4-Ig Binding →

Fig. 6

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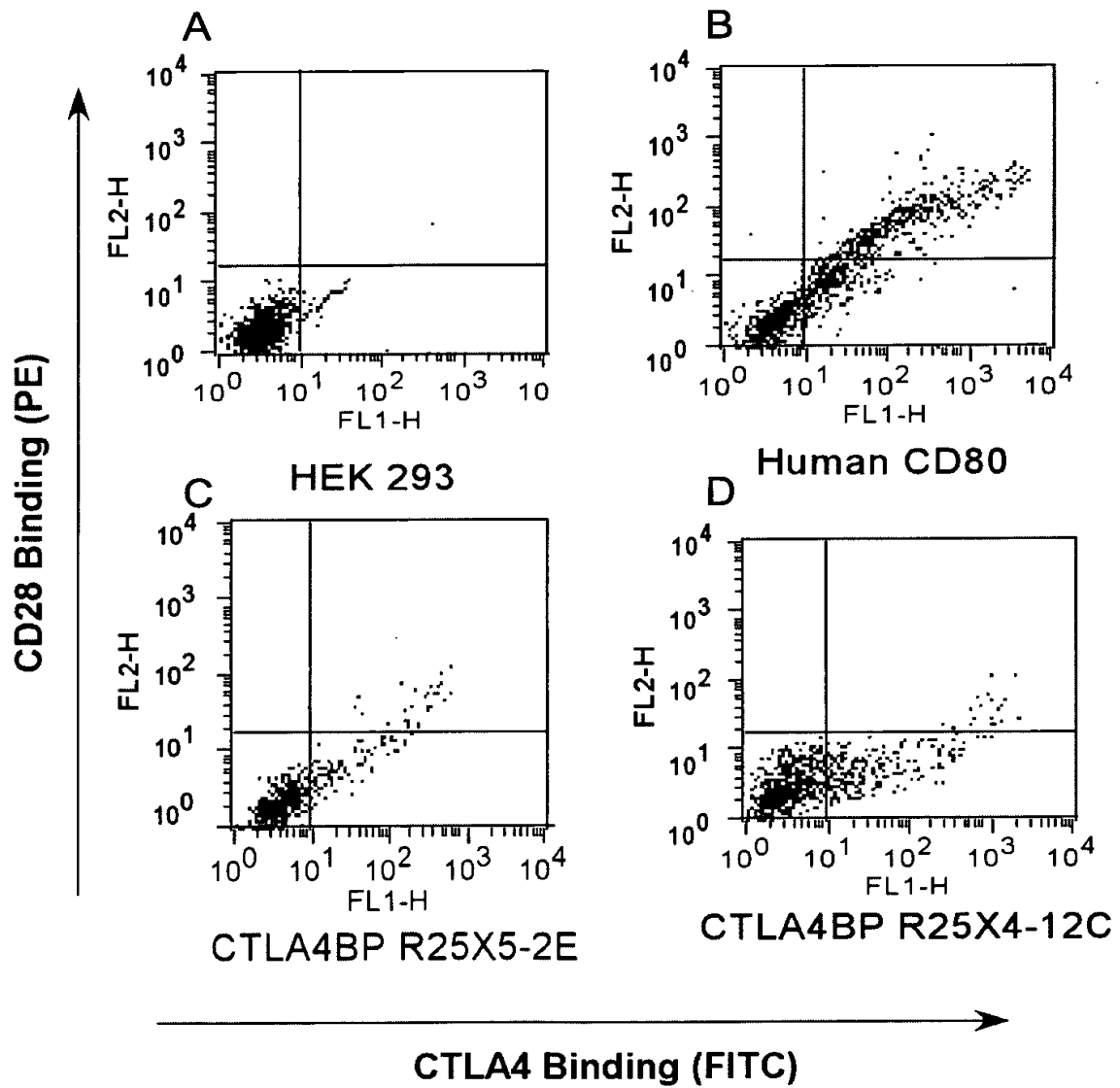


Fig. 7A-D

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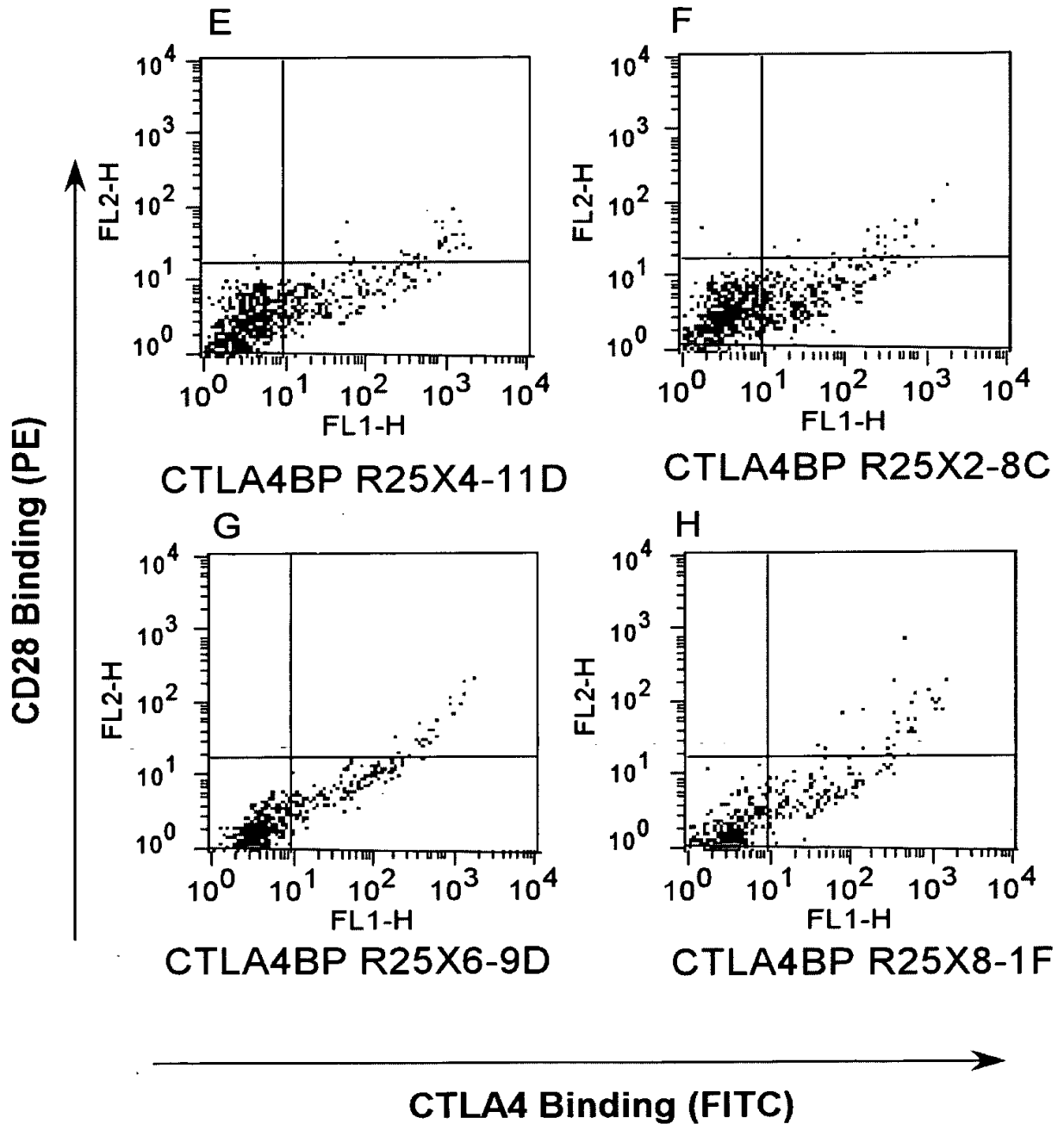


Fig. 7E-H

MGHTRRQGTSPSKCPYLKFFQLVLAGLSHFCSGVIHVTKEVATLSCGHNVSVVEELAQT
 ▲RIHWQEKKMVLTMMSGDMNIWPEYKNRTIFDITNNLSIVILALRPSDEGTYECVWLKYEKDAF
 KREHLAEVMLSVKADFPTPSISDFFEIPPSNIRRIICSTSGGFPEPHLFWLENGEELNAINTTVSQ
 *DPETELYTVSSKLDENMTTNHSMCLIKYGLRVNQTFNWNTPKQEHFPDNLPSWAITLISA
 ▲NGIFVICCLTYRFAPRCRERKSNETLRRESVRPV
 ▲

Fig. 8A

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CD28BP

MGHTMKWGLPPKRPCLWLSQLLVLTGLFYFCSGITPKSVTKRVKETVMLSCDYNTSTEELT
S*RIYWQKDSKMVLAILPGKVQVWPEYKNRTITDMNDNPRIVILALRPDSGTYTCVIQKPVLK
*GAYKLEHLASVRLMIRADFPVPTINDLGNPSPNIRRLICSTSGGFPRPHLYWLENGEELNATNT
TVSQDPGTELYMISSELDENVTNHHSIVCLIKYGELSVSQIFPWSKPKQEPIDQLPFWWIIPVS
GALVLTAVVLYCLACRHHVARWKTRRNEETVGTERTLSPIYLGSAQSSG

Fig. 8B

human orangutan rhesus baboon

rhesus/baboon cow rabbit

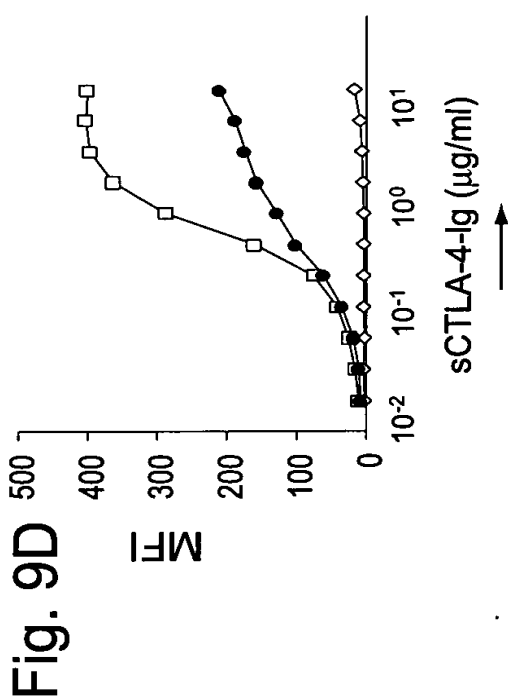
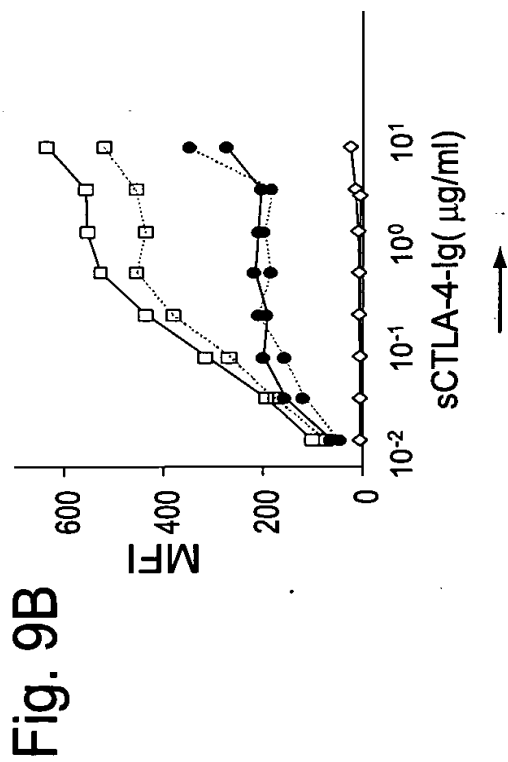
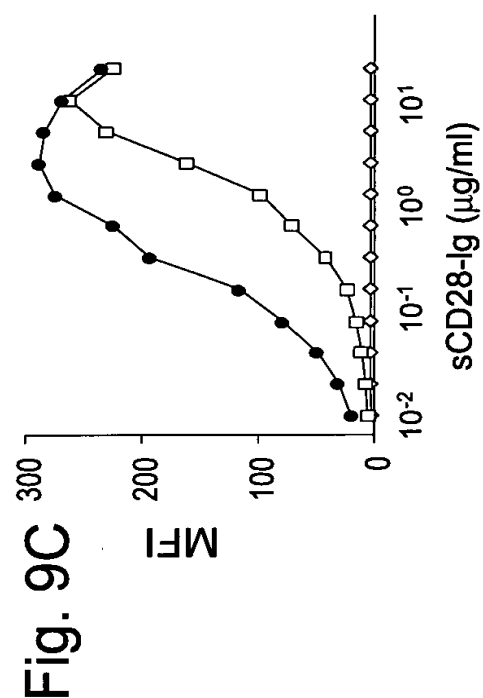
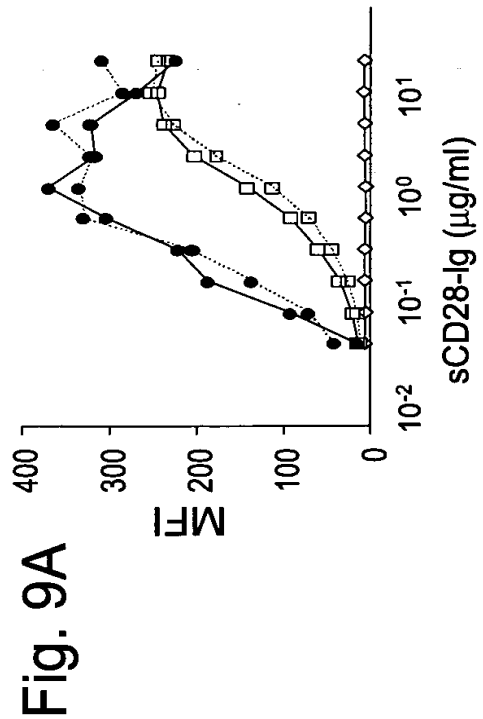
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- ◇ Vector control
- hB7-1
- ▢ hB7-1-Flag
- CD28BP-15
- CD28BP-Flag
- ▲ CTLA-4BP 5X4-12c





- ◇ Vector control
- hB7-1
- CD28BP-15
- CD28BP-Flag
- ▲ CTLA-4BP 5X4-12c
- hB7-1-Flag

Fig. 9E

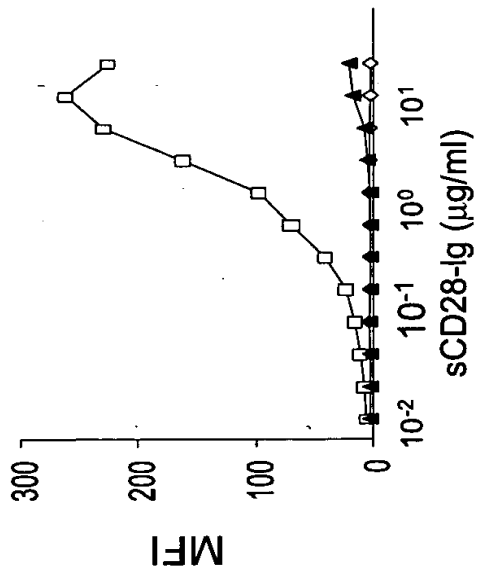


Fig. 9G

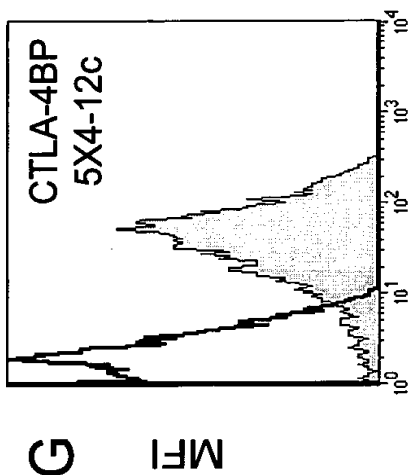


Fig. 9F

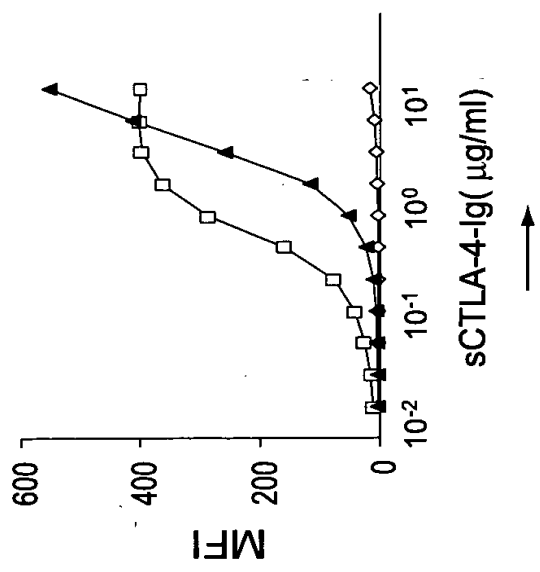
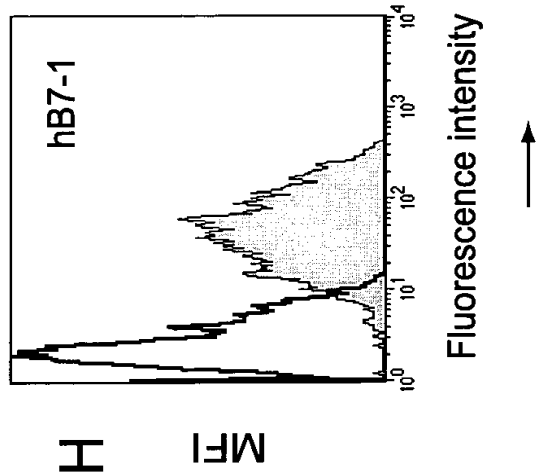


Fig. 9H



Fluorescence intensity →

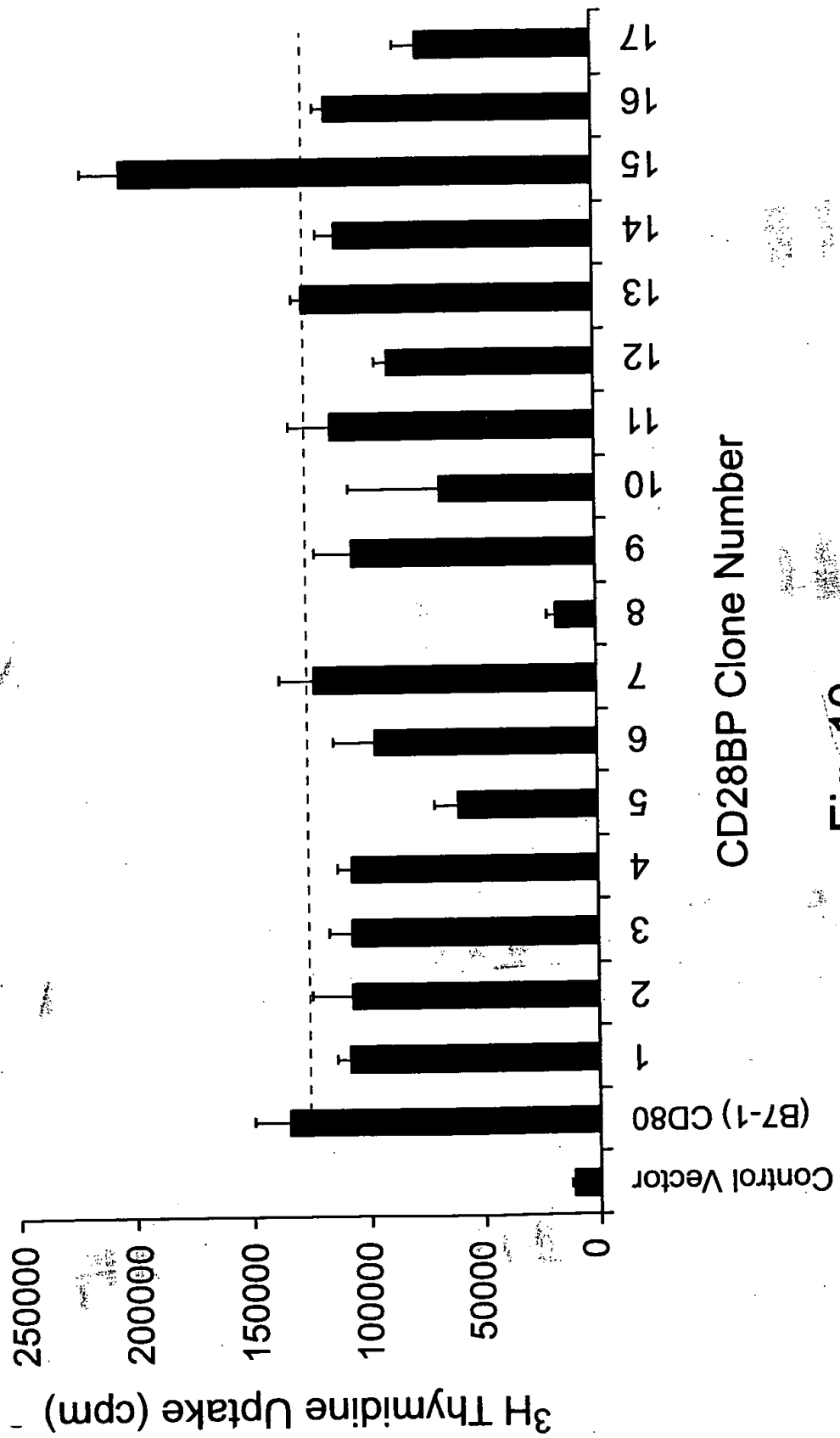


Fig. 10

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Fig. 11A

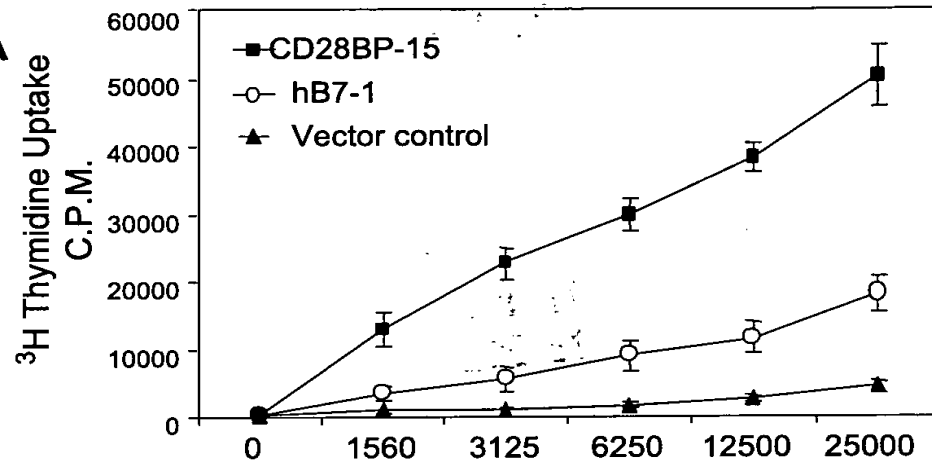


Fig. 11B

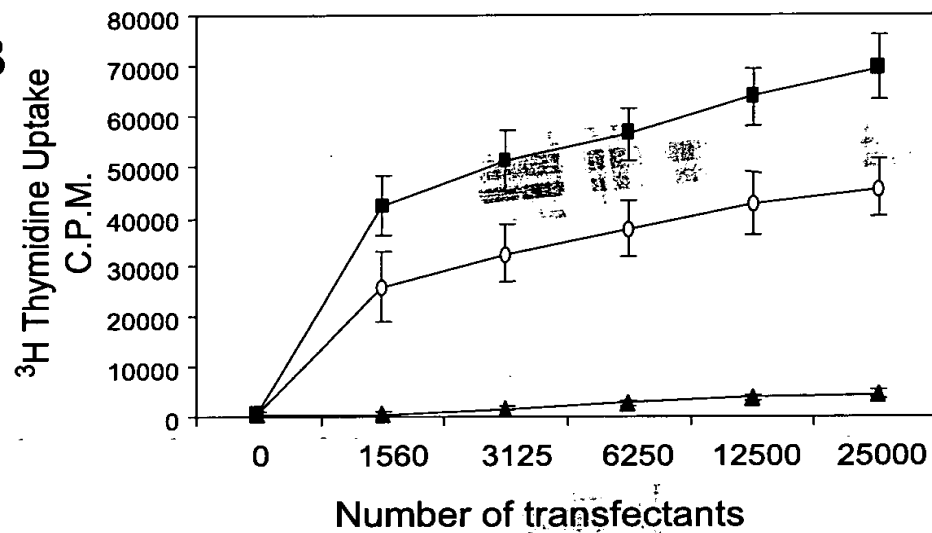
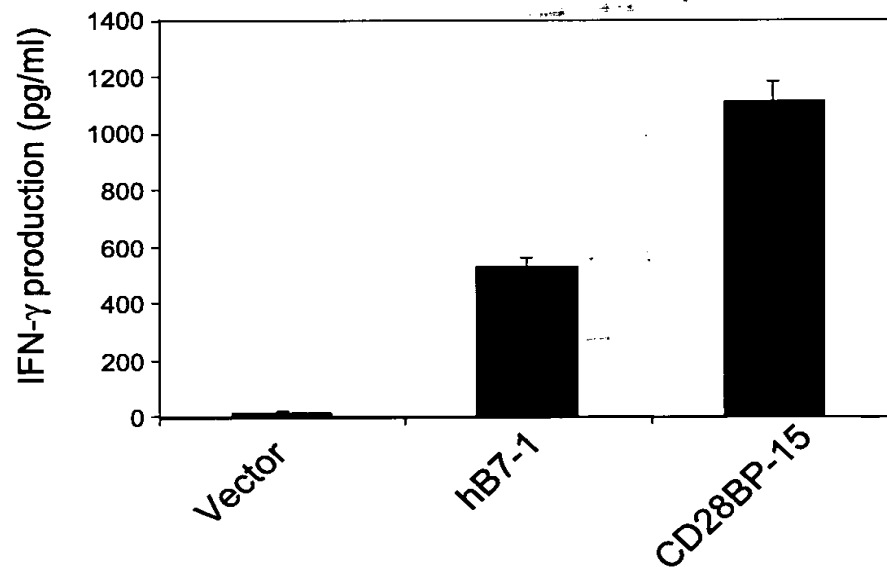


Fig. 11C





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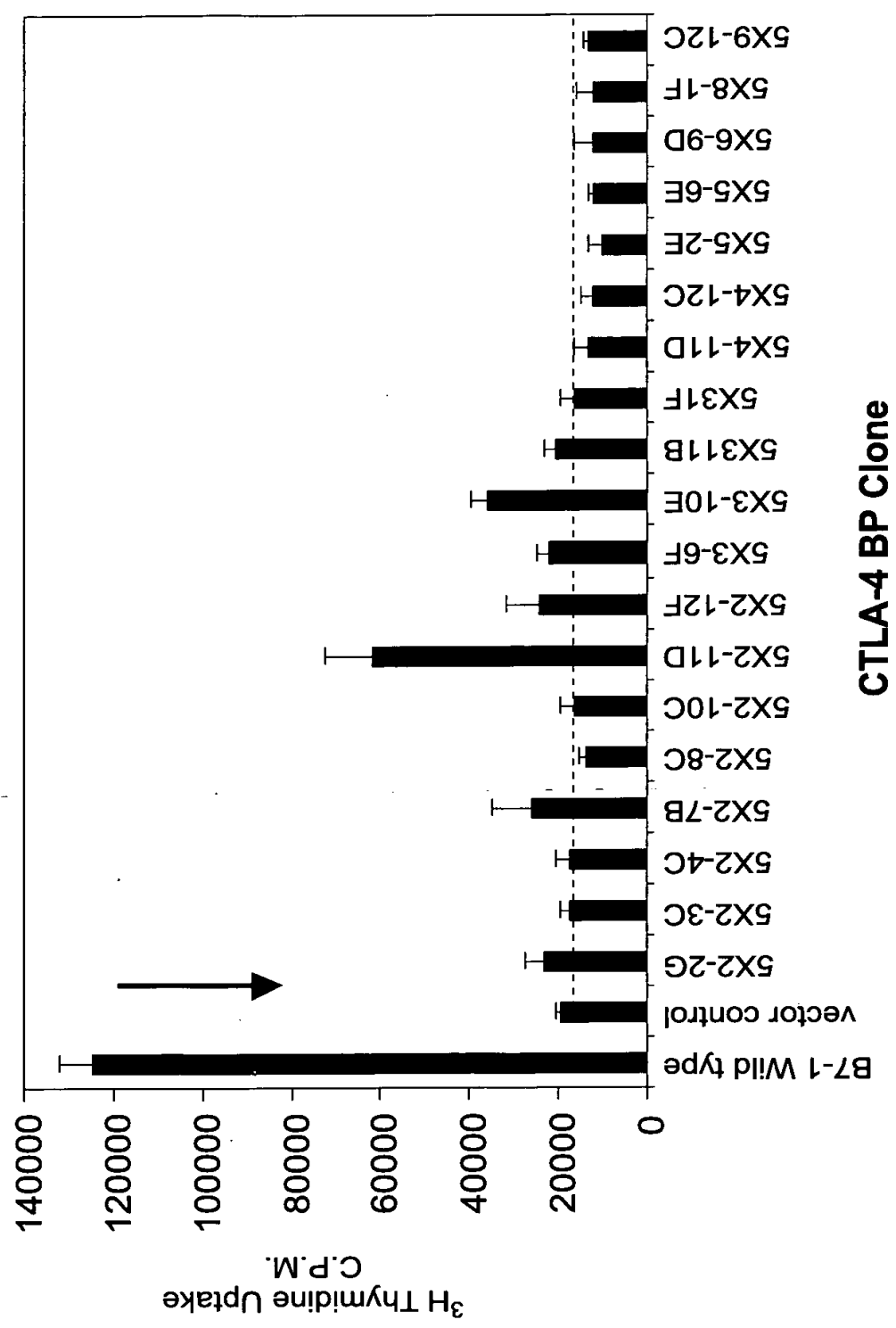


Fig. 12

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Fig. 13A

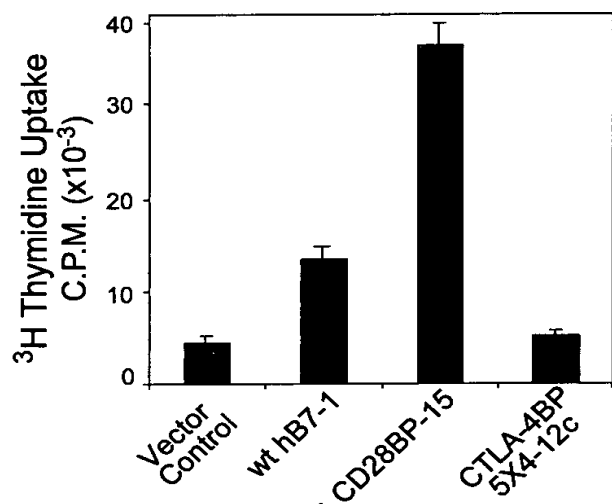


Fig. 13B

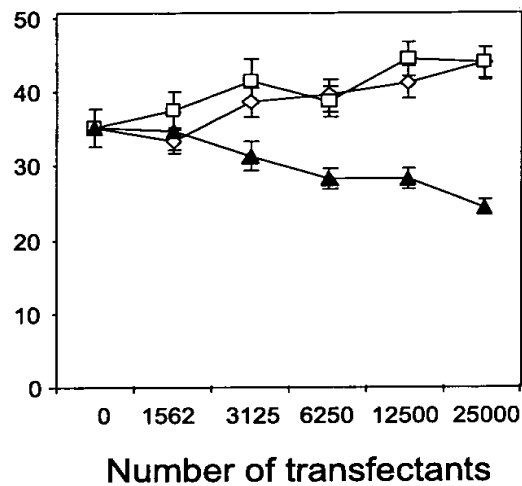


Fig. 13C

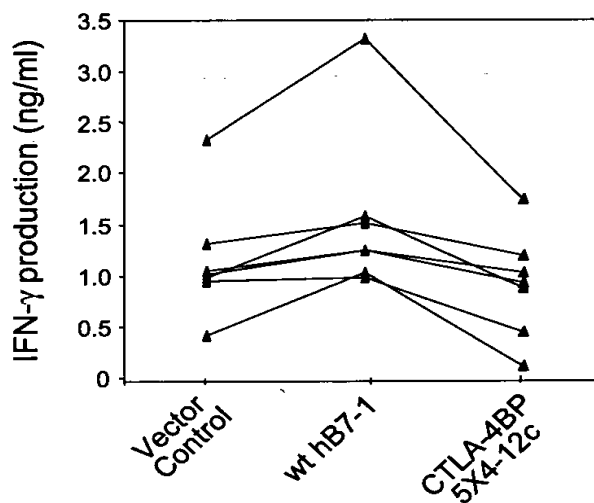


Fig. 13D

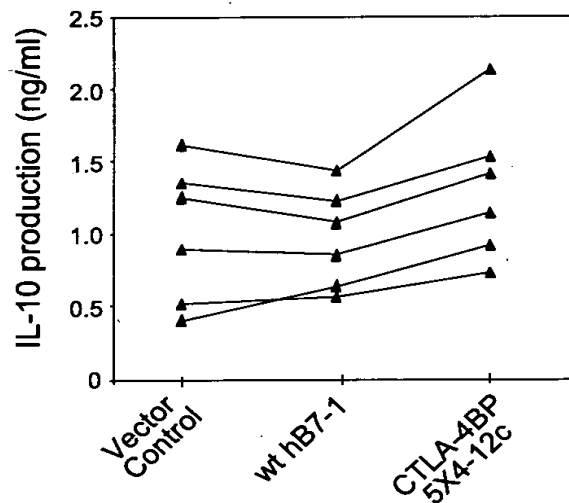


Fig. 14A

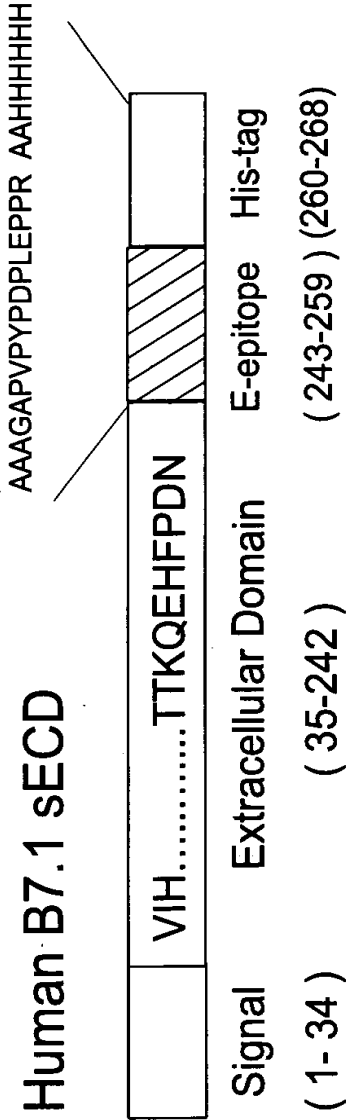
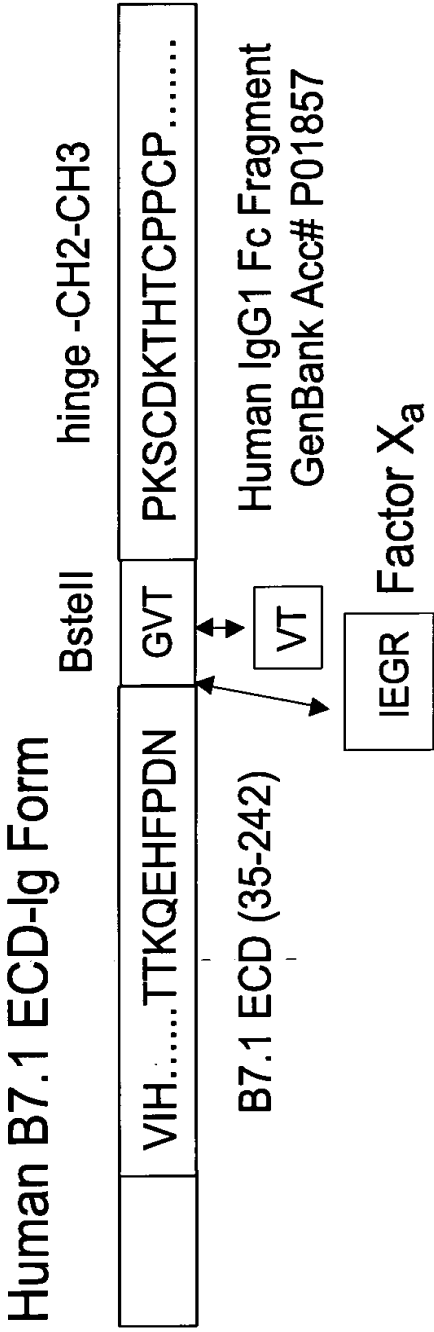


Fig. 14B



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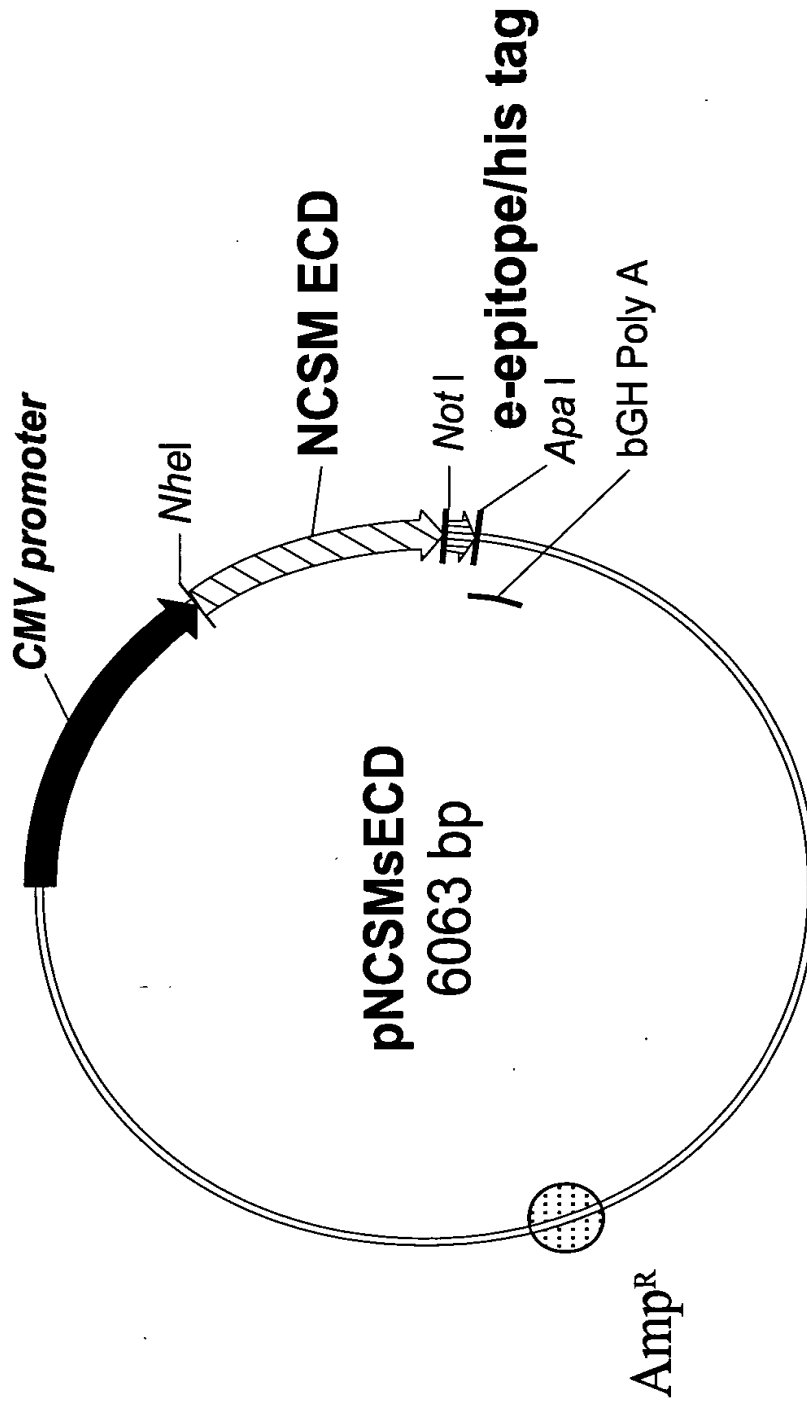


Fig. 15



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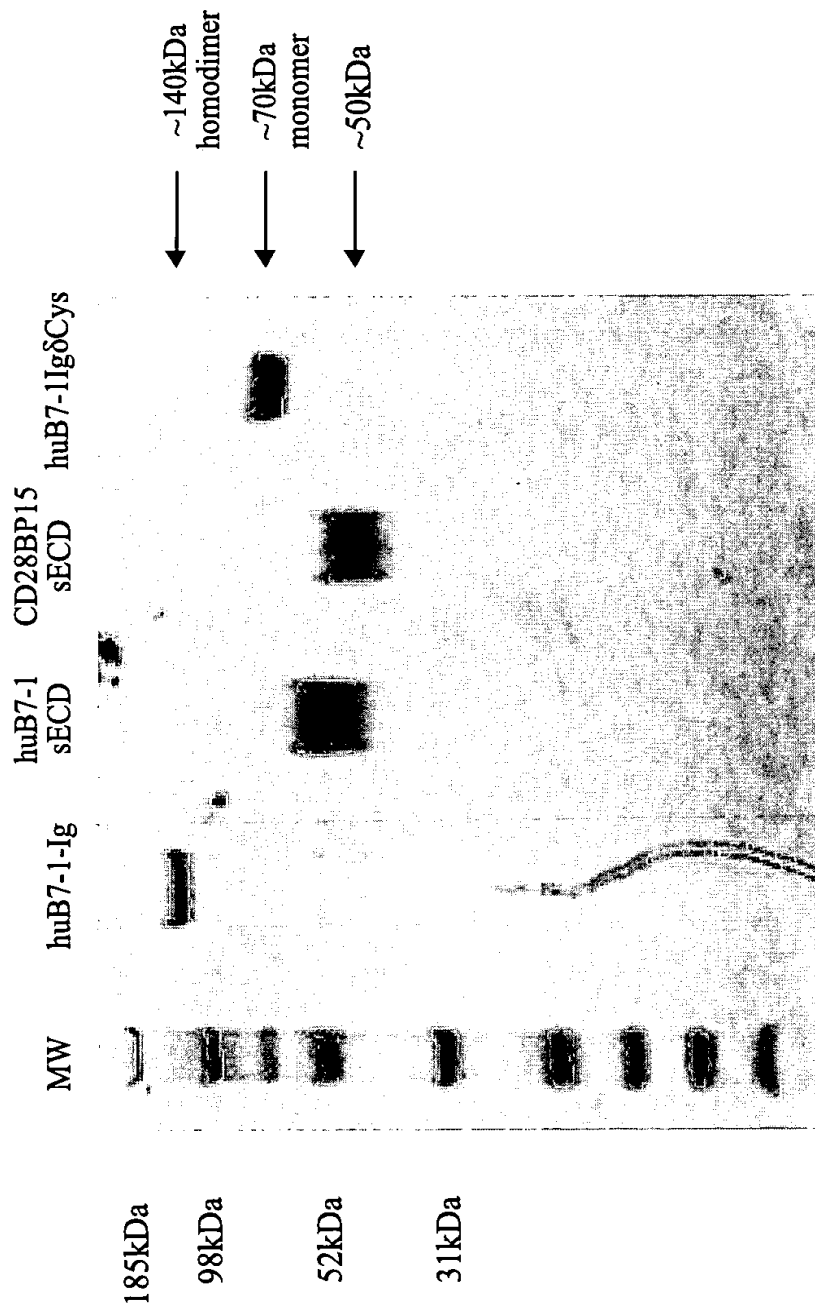


Fig. 16



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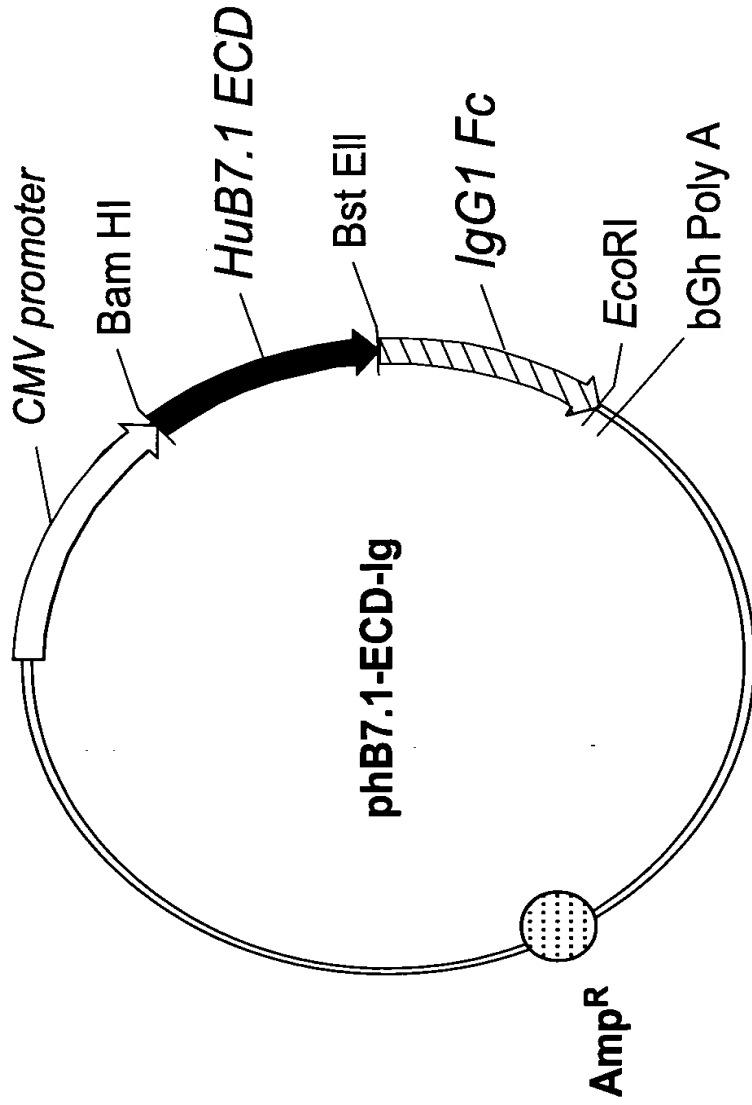


Fig. 17

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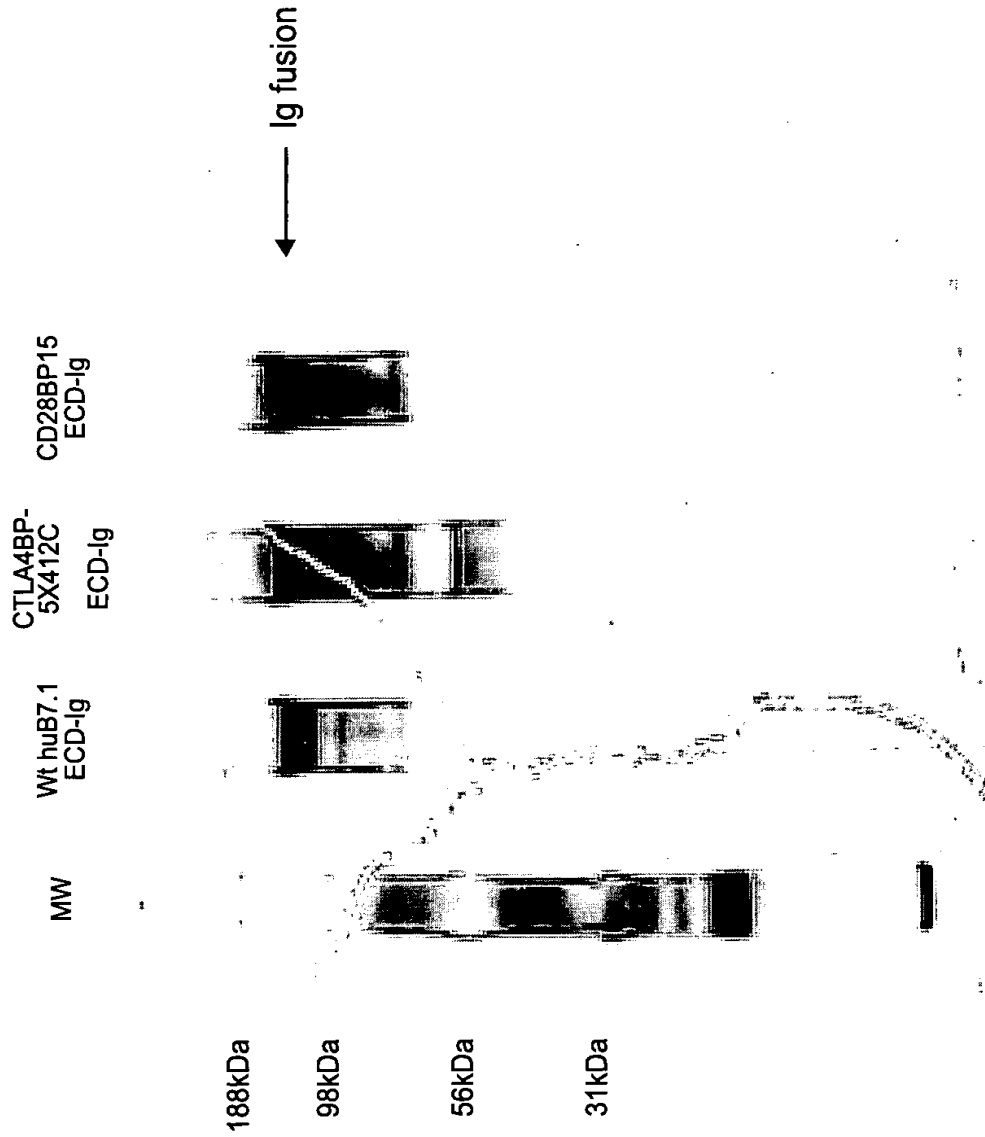


Fig. 18

Expression of CTLA-4BP-Ig and CD28BP-Ig Proteins

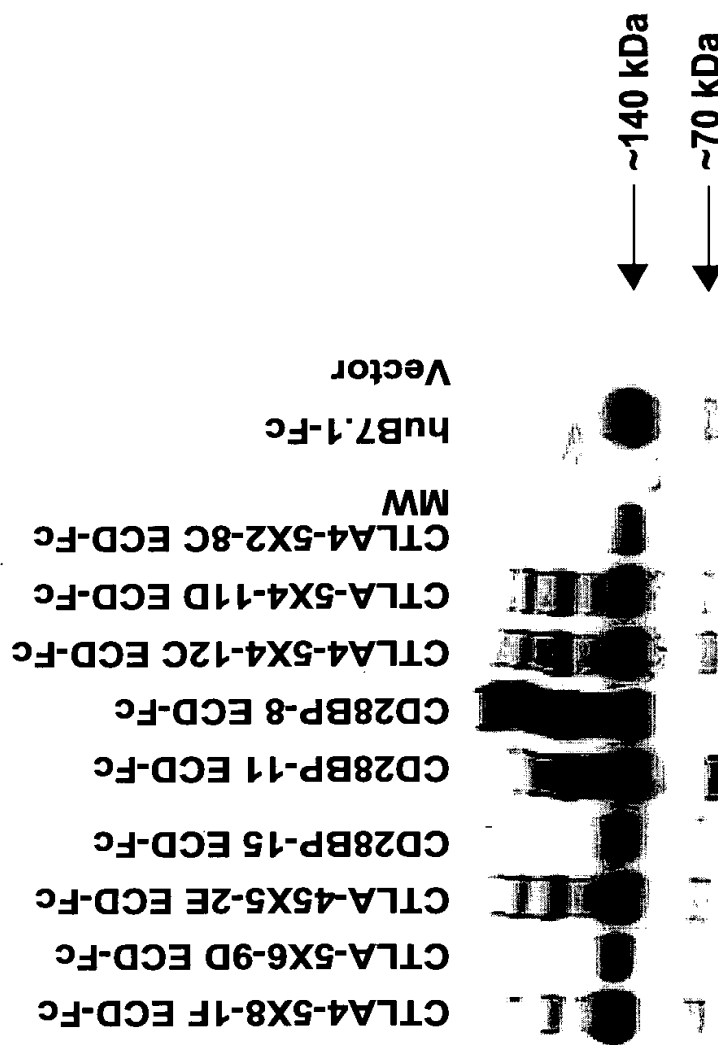


Fig. 19

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Fig. 20A

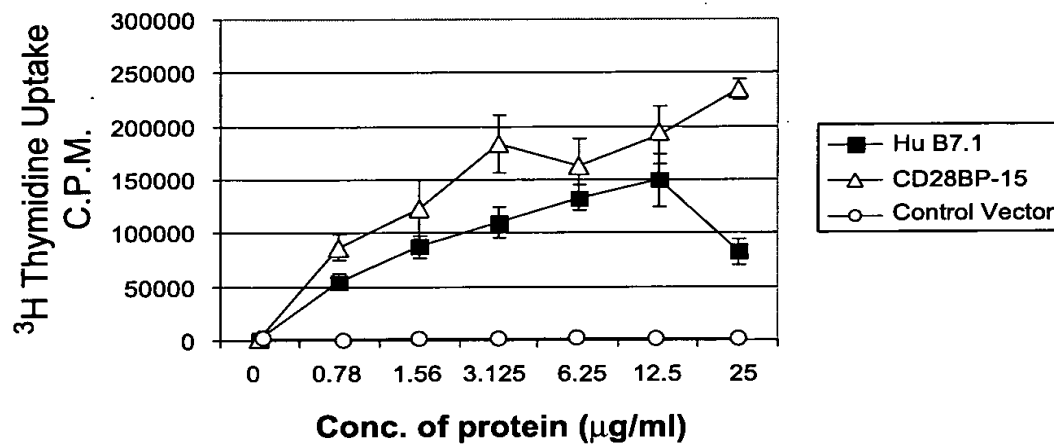
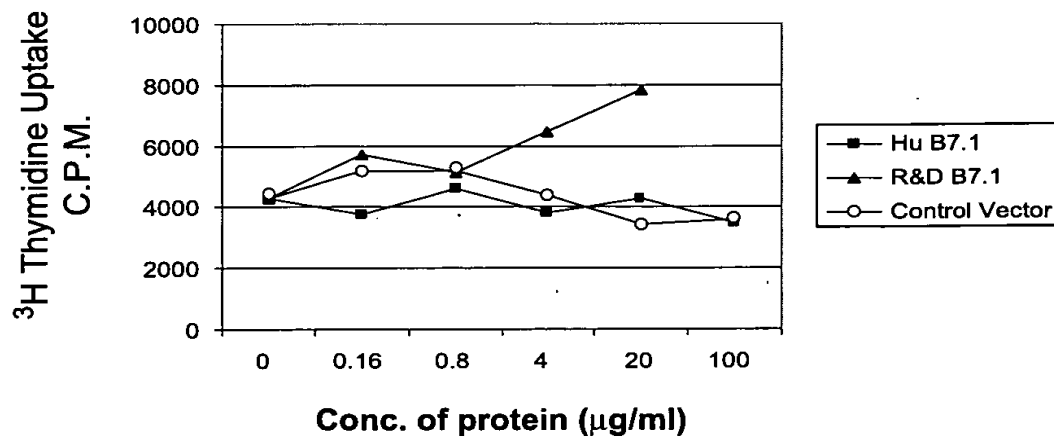


Fig. 20B



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Fig. 20C

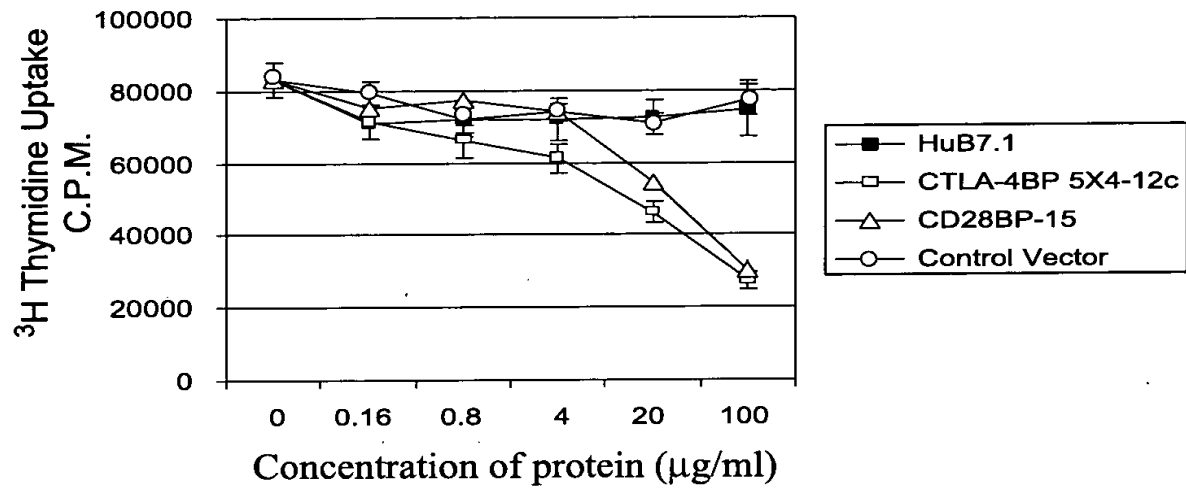
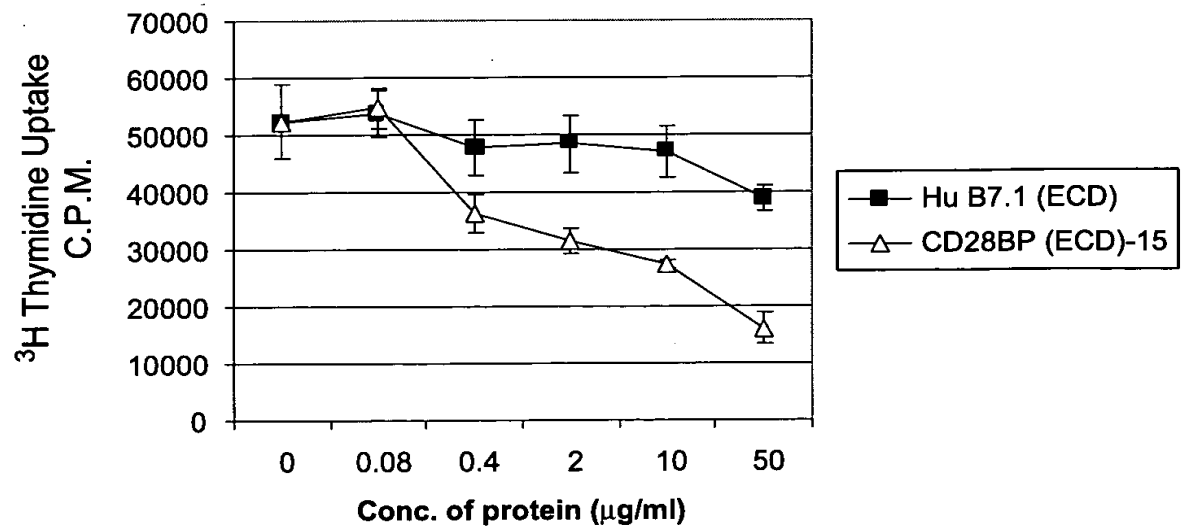


Fig. 20D



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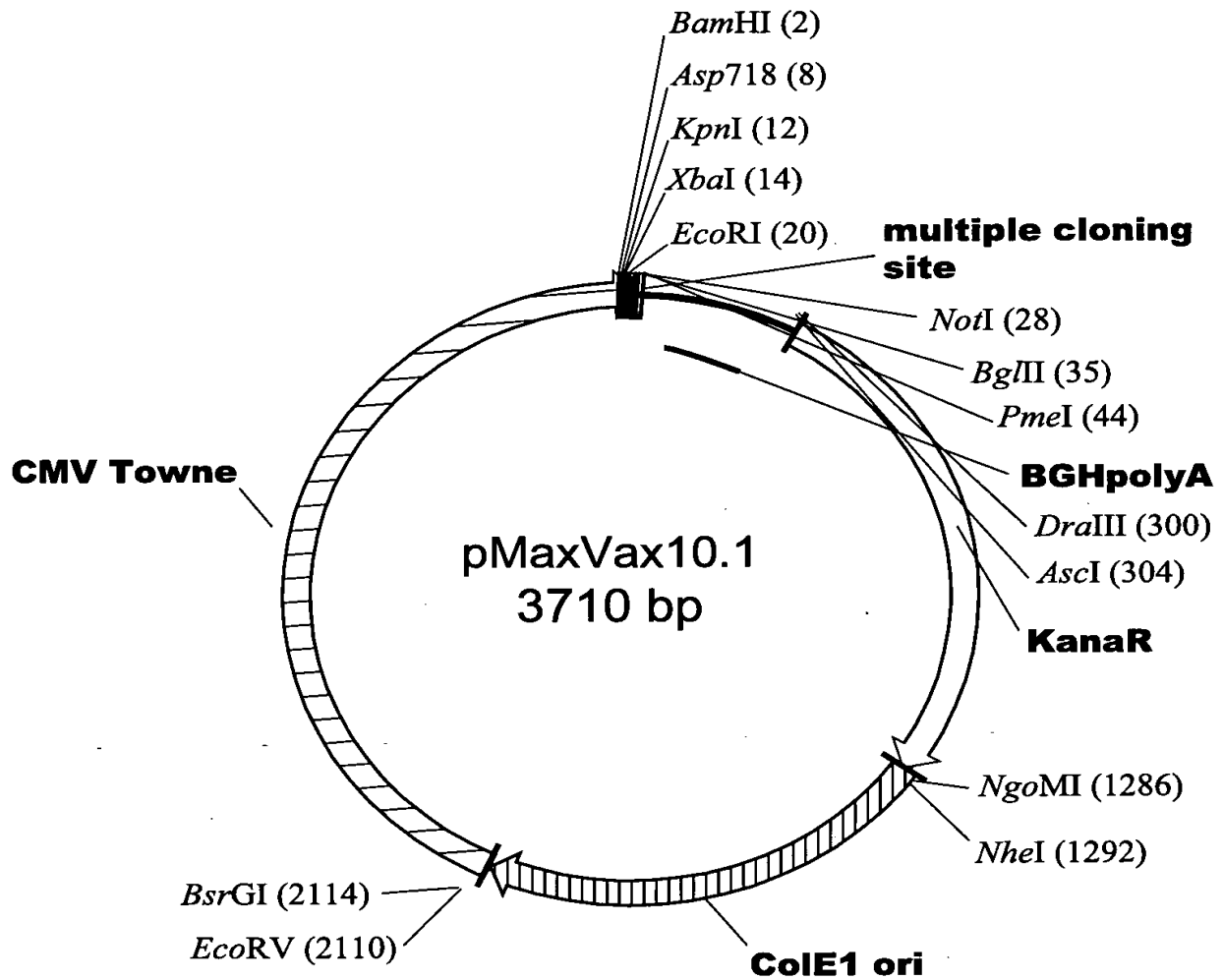


Fig. 21

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Fig. 22A

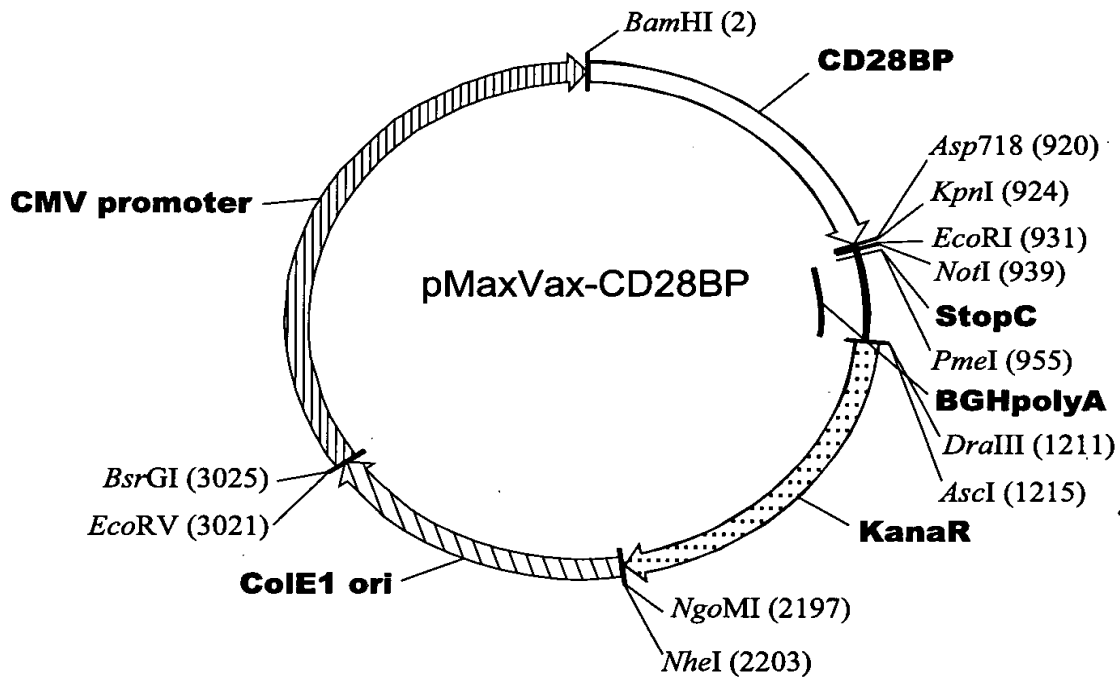


Fig. 22B

